AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims:

Listing of Claims:

1.   (Currently amended) An integrated message exchange system for collaborative business applications, comprising:

an integration repository comprising a plurality of design-time business scenarios, the one or more design-time business scenarios each describing and configuring message-based interaction between application components or enterprises based on a set of business process logic, routing rules, and executable mappings defined by the design-time business scenario that captures pre-loaded collaboration descriptions of a plurality of applications between which communication could be enabled via the integrated message exchange system, the pre-loaded collaboration descriptions being captured in the integration repository at design-time;

a system landscape directory that provides a description of an active system landscape and identifies a configuration-specific business scenario that is consistent with the active system landscape, the active system landscape comprising listing one or more installed applications with which the integrated message system communicates;

an integration directory that captures the configuration-specific business scenario, collaboration descriptions of the one or more installed applications listed in identified by the system landscape directory from by referencing the plurality of design-time business scenarios in the integration repository; [[,]] and

a processor that implements an integration server, the integration server comprising: that is implemented on a processor and that comprises

2

a message transport layer that transports ~~a message~~ ~~messages~~ from at least one sending application of the one or more installed applications to one or more receiving applications of the one or more installed applications,

a _runtime engine comprising a_ business process _engine_ ~~layer~~ that executes _the_ business process logic _defined in the configuration-specific business scenario_ on ~~selected messages processed~~ ~~by the message transport layer~~ _the message if the at least one sending application and/or the one or more receiving applications require business process logic,_ ~~the messages being selected based on an~~ ~~application of the configuration-specific collaboration descriptions captured in the integration~~ ~~directory~~ _the runtime engine further comprising a logical routing service that evaluates routing rules defined in the configuration-specific business scenario to determine one or more required interfaces for the one or more receiving applications and also to determine whether business logic needs to be applied to the message, and a mapping service that applies executable mappings defined in the configuration-specific business scenario to determine one or more required transformations to the message that depend on the message content, the at least one sending application, and/or the one or more receiving applications,_ and

a persistence layer[[,]] _that is_ accessible from both the message transport layer and the _runtime engine_ ~~business process layer~~, and _that stores_ ~~storing~~ a reference to each message processed by the message transport layer.

2.   (Original) The system in accordance with claim 1, further comprising a database, accessible via the persistence layer, for storing a copy of each of the messages corresponding to the message references stored in the persistence layer.

3.   (Original) The system in accordance with claim 1, wherein the message transport layer includes a physical address resolution service, and a transport service.

4.   (Original) The system in accordance with claim 1, further comprising a logical routing service for determining the one or more receiving applications based on the business process logic.

5.   (Original) The system in accordance with claim 1, wherein the business process layer includes a business process engine for executing the business process logic.

6.   (Original) The system in accordance with claim 5, wherein the business process logic is executed according to one or more business processes stored in a directory accessible by the business process engine,

7.   (Original) The system in accordance with claim 6, wherein the one or more business processes are accessed by the business process engine based on content of each selected message.

8.   (Canceled)

9.   (Canceled)

10.   (Canceled)

11.   (Canceled)

12.   (Currently amended) In a collaborative business application landscape, a method for integrated message exchange, comprising:

capturing configuration-specific collaboration descriptions of one or more applications installed in an exchange infrastructure, the capturing comprising <u>accessing a description of an active system landscape and a configuration-specific business scenario that is consistent with the active system landscape</u> reading from a~~ listing of the one or more installed applications that is stored in a~~

4

system landscape directory, the capturing further comprising ~~and~~ referencing an integration

repository that ~~has captured, at~~ comprises a plurality of design-time business scenarios, the one or

more design-time business scenarios each describing and configuring message-based interaction

between two or more application components or enterprises based on a set of business process

logic, routing rules, and executable mappings defined by the design-time business scenario, the

configuration-specific business scenario being selected from the design-time business scenarios;

~~collaboration descriptions of a plurality of applications between which communication could be~~

~~enabled in the exchange infrastructure, and~~

     receiving a message from a sending application of the two ~~one~~ or more applications;

     storing a copy of the message in a database;

     storing a reference to the message in a persistence layer;

     executing the ~~at least one~~ business process logic defined in the configuration-specific

business scenario on the message if the at least one sending application and/or the one or more

receiving applications require business process logic, ~~the message being selected for execution of the~~

~~at least one business process based on an application of the configuration-specific collaboration~~

~~descriptions captured in the integration directory;~~

     evaluating routing rules defined in the configuration-specific business scenario to determine

one or more required interfaces for the one or more receiving applications and also to determine

whether business logic needs to be applied to the message;

     applying the executable mappings defined in the configuration-specific business scenario to

determine one or more required transformations to the message that depend on the message

content, the at least one sending application, and/or the one or more receiving applications; and

     based on the message reference stored in the persistence layer, transporting the message to

at least one receiving application of the two ~~one~~ or more applications.

13.   (Original) The method in accordance with claim 12, wherein transporting the message includes resolving a physical address of the at least one receiving application.

14.   (Original) The method in accordance with claim 12, further comprising accumulating, in the persistence layer, two or more message references of related messages.

15.   (Original) The method in accordance with claim 14, wherein transporting the message includes:

accessing and grouping the messages associated with the accumulated message references; and

transporting the grouped messages to the at least one receiving application.

16.   (Original) The method in accordance with claim 12, wherein executing the at least one business process includes:

determining the at least one business process based on the message content;

instantiating the at least one business process in a server; and

executing the at least one instantiated business process with a business process engine.

17.   (Original) The method in accordance with claim 16, wherein the executing the at least one instantiated business process utilizes the message reference in the persistence layer.

18.   (Original) The method in accordance with claim 12, further comprising, upon executing the at least one business process, sending the message reference to a message transport layer for transporting the message to at least one receiving application.

19.   (Previously Presented) The system in accordance with claim 1, wherein the integration server comprises:

a runtime engine that provides messaging and business process control at runtime for connecting the one or more installed applications; and

one or more integration services that are specific to one or more of the one or more installed applications.

20.   (Previously Presented) The system in accordance with claim 1, wherein the integration server is a dedicated server that applies the collaboration knowledge from the integration directory in a runtime collaboration environment.

21.   (Currently amended) An article comprising a machine-readable medium embodying instructions that when performed by one or more machines result in operations comprising:

capturing configuration-specific collaboration descriptions of one or more applications installed in an exchange infrastructure, the capturing comprising accessing a description of an active system landscape and a configuration-specific business scenario that is consistent with the active system landscape reading from a listing of the one or more installed applications that is stored in a system landscape directory, the capturing further comprising and referencing an integration repository that has captured, at comprises a plurality of design-time business scenarios, the one or more design-time business scenarios each describing and configuring message-based interaction between two or more application components or enterprises based on a set of business process logic, routing rules, and executable mappings defined by the design-time business scenario, the configuration-specific business scenario being selected from the design-time business scenarios; collaboration descriptions of a plurality of applications between which communication could be enabled in the exchange infrastructure, and

receiving a message from a sending application of the two one or more applications;

storing a copy of the message in a database;

7

storing a reference to the message in a persistence layer;

executing the ~~at least one~~ business process logic defined in the configuration-specific business scenario on the message if the at least one sending application and/or the one or more receiving applications require business process logic, ~~the message being selected for execution of the at least one business process based on an application of the configuration-specific collaboration descriptions captured in the integration directory~~;

evaluating routing rules defined in the configuration-specific business scenario to determine one or more required interfaces for the one or more receiving applications and also to determine whether business logic needs to be applied to the message;

applying the executable mappings defined in the configuration-specific business scenario to determine one or more required transformations to the message that depend on the message content, the at least one sending application, and/or the one or more receiving applications; and

based on the message reference stored in the persistence layer, transporting the message to at least one receiving application of the two ~~one~~ or more applications.

22.   (New) A system as in claim 1, wherein the routing rules determine the receiving application on a business level.